

```
=>
L1      STRUCTURE UPLOADED

=> s 11 sss sam
SAMPLE SEARCH INITIATED 16:28:29 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      30 TO ITERATE

100.0% PROCESSED      30 ITERATIONS      1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:   272 TO    928
PROJECTED ANSWERS:      1 TO     80
```

```
L2      1 SEA SSS SAM L1

=> d scan

=> s 11 sss full
FULL SEARCH INITIATED 16:28:39 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    638 TO ITERATE

100.0% PROCESSED    638 ITERATIONS    61 ANSWERS
SEARCH TIME: 00.00.01
```

```
L3      61 SEA SSS FUL L1

=> s 13
L4      29 L3

=> s 13/DEV
      29 L3
      790746 DEV/RL
L5      13 L3/DEV
      (L3 (L) DEV/RL)

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):y

=>
```

```
L6      STRUCTURE UPLOADED

=> s 16 sss full
FULL SEARCH INITIATED 16:38:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    386 TO ITERATE

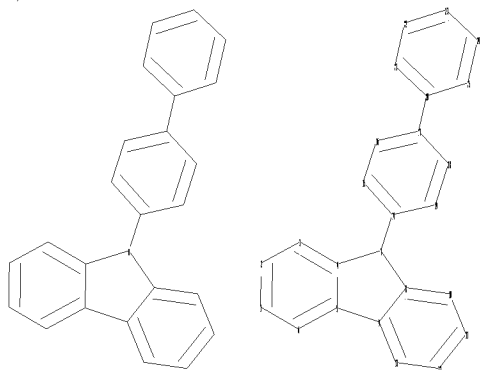
100.0% PROCESSED    386 ITERATIONS    11 ANSWERS
SEARCH TIME: 00.00.01
```

```
L7      11 SEA SSS FUL L6

=> s 17
L8      7 L7

=> d ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

=>
```



```
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
chain bonds :
7-14 17-20
ring bonds :
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-9 7-8 8-9 8-10 9-13 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25
exact/norm bonds :
4-7 5-9 7-8 7-14
exact bonds :
17-20
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-10 9-13 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25
isolated ring systems :
containing 14 : 20 :
```

```
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom
23:Atom 24:Atom 25:Atom
```

```
L1      STRUCTURE UPLOADED

=> s 11 sss sam
SAMPLE SEARCH INITIATED 09:11:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    1612 TO ITERATE

100.0% PROCESSED    1612 ITERATIONS    39 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:   29832 TO   34648
PROJECTED ANSWERS:      406 TO    1154

L2      39 SEA SSS SAM L1
```

```

=> d scan

=> s l1 sss full
FULL SEARCH INITIATED 09:11:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 32003 TO ITERATE

100.0% PROCESSED 32003 ITERATIONS 894 ANSWERS
SEARCH TIME: 00.00.02

L3 894 SEA SSS FUL L1

=> s l3
L4 1859 L3

=> l3 and (electroluminescence or electroluminescent or OLED or (light emitting))
1859 L3
26421 ELECTROLUMINESCENCE
29 ELECTROLUMINESCENCES
26425 ELECTROLUMINESCENCE
(ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES)
5 ELECTROLUMINESCENCE
26426 ELECTROLUMINESCENCE
(ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)
89709 ELECTROLUMINESCENT
8 ELECTROLUMINESCENTS
89712 ELECTROLUMINESCENT
(ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)
7457 OLED
3717 OLEDs
9350 OLED
(OLED OR OLEDs)
1331320 LIGHT
12578 LIGHTS
1335544 LIGHT
(LIGHT OR LIGHTS)
139582 EMITTING
217 EMITTINGS
139626 EMITTING
(EMITTING OR EMITTINGS)
75726 LIGHT EMITTING
(LIGHT(W)EMITTING)
L5 1724 L3 AND (ELECTROLUMINESCENCE OR ELECTROLUMINESCENT OR OLED OR
(LIGHT EMITTING))

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y

(FILE 'HOME' ENTERED AT 09:08:53 ON 08 DEC 2009)

FILE 'REGISTRY' ENTERED AT 09:09:44 ON 08 DEC 2009
L1 STRUCTURE UPLOADED
L2 39 SEA FILE=REGISTRY SSS SAM L1
L3 894 SEA FILE=REGISTRY SSS FUL L1

FILE 'CAPLUS' ENTERED AT 09:11:35 ON 08 DEC 2009
L4 1859 SEA FILE=CAPLUS SPE=ON ABB=ON FLU=ON L3
L5 1724 SEA FILE=CAPLUS SPE=ON ABB=ON FLU=ON L3 AND (ELECTROLUMINESC
ENCE OR ELECTROLUMINESCENT OR OLED OR (LIGHT EMITTING))
COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
12.20 199.48

STN INTERNATIONAL LOGOFF AT 09:12:32 ON 08 DEC 2009

Connecting via Winsock to STN

Welcome to STN International! Enter x:X

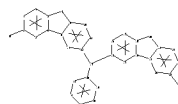
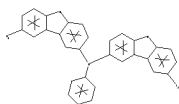
LOGINID:SSPTAAKB1794

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

=>

```



```

chain nodes :
27 35 36
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 28 29 30 31 32 33
chain bonds :
2-35 12-27 15-27 25-36 27-28
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 8-10 9-13 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 18-20 19-22 20-21 21-22 21-23 22-26 23-24 24-25 25-26 28-29 28-33
29-30 30-31 31-32 32-33
exact/norm bonds :
2-35 5-7 7-8 12-27 15-27 18-20 20-21 25-36 27-28
exact bonds :
6-9 19-22
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-10 9-13 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 21-22 21-23 22-26 23-24 24-25 25-26 28-29 28-33 29-30 30-31 31-32 32-33

```

isolated ring systems :  
containing 1 : 14 :  
  
G1:H,Cb,Ak  
  
Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:CLASS 28:Atom 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 35:CLASS 36:CLASS

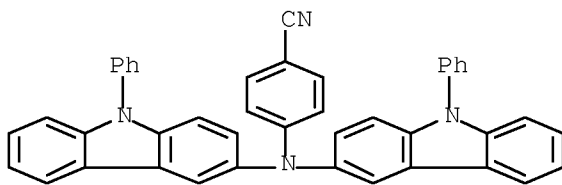
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100.0% PROCESSED       1049 ITERATIONS                   69 ANSWERS  
SEARCH TIME: 00.00.01  
  
L2           69 SEA SSS FUL L1  
  
=> s 12  
L3           41 L2  
  
=> 13 and (py<2005 or ay<2005)  
          2515808 PY<2005  
          5164954 AY<2005  
L4           20 L3 AND (PY<2005 OR AY<2005)  
  
=> d ibib abs hitstr 1-  
YOU HAVE REQUESTED DATA FROM 20 ANSWERS - CONTINUE? Y/(N):y

.L4 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN  
Accession Number  
20071118739 CAPLUS [Full-text](#)  
Document Number  
147:436460  
Title  
Organic light emitting device and flat panel display device comprising the same  
Author/Inventor  
Hwang, Seok-Hwan; Kim, Young-Kook; Kwak, Yoon-Hyun; Lee, Jong-Hyuk; Lee, Kwan-Hee; Chun, Min-Seung  
Patent Assignee/Corporate Source  
Samsung SDI Co., Ltd., S. Korea  
Source  
U.S. Pat. Appl. Publ., 49 pp., Cont-in-part of U.S. Ser. No. 286,421. CODEN: USXXCO  
Document Type  
Patent  
Language  
English  
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070231503	A1	20071004	US 2007-806039	20070529
KR 2005097670	A	20051010	KR 2004-22877	20040402
KR 2006005755	A	20060118	KR 2004-54700	20040714
KR 2006059613	A	20060602	KR 2004-98747	20041129
KR 787425	B1	20071226		
US 20050221124	A1	20051006	US 2005-97182	20050404
US 20060020136	A1	20060126	US 2005-181706	20050713
US 7431997	B2	20081007		
US 20060115680	A1	20060601	US 2005-286421	20051125
KR 2007114562	A	20071204	KR 2006-48306	20060529
KR 846586	B1	20080716		
JP 2007318101	A	20071206	JP 2007-110746	20070419
CN 101083308	A	20071205	CN 2007-10109285	20070529
EP 1862524	A1	20071205	EP 2007-109066	20070529
EP 1862524	B1	20090408		
ES 2323389	T3	20090714	ES 2007-109066	20070529
KR 2007114669	A	20071204	KR 2007-76436	20070730
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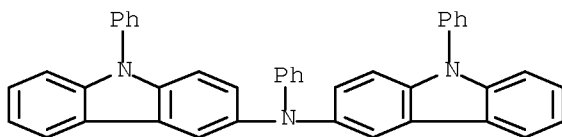
Abstract  
An organic light emitting device is described comprising a substrate; a first and a second electrode; one of the electrodes being a reflective electrode, the other being a (semi)transparent; and an organic layer interposed between the electrodes, the organic layer comprising an emission layer, and comprising a compound represented by general formula I, II, and III, where X = C1-C30 alkylene or alkenylene, C6-C30 arylene, C2-C30 heteroarylene, C2-C30 hetero ring; R1-R8 = (each independently) H, C1-C30 alkyl, C1-C30 alkoxy, C6-C30 aryl, C6-C30 aryloxy, C2-C30 hetero ring, C5-C30 polycyclic condensed ring, hydroxy, cyano, amino (R1, R2, R3 may bound together to form ring, R4, R5 may bound together to form a ring, two or more of R6,R7, R8 may bound together to form carbon ring); Ar1, Ar2, Ar3 = (each independently) C6-C30 aryl, C2-C30 heteroaryl; Y = (independently) C1-C30 alkyl, C6-C30 aryl, C2-C30 hetero ring; n (independently) = integer of 0-5. A flat panel display device comprising the organic light emitting device is also described.

Hit Structure  
  
CAS Registry Number  
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Chemical or Trade Name  
Benzonitrile, 4-[bis(9-phenyl-9H-carbazol-3-yl)amino]- (CA INDEX NAME)



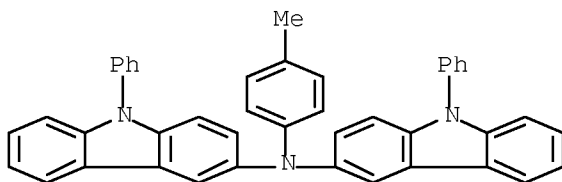
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873793-58-9 CAPLUS

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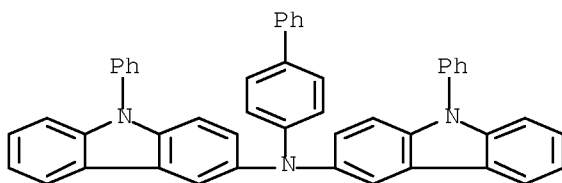
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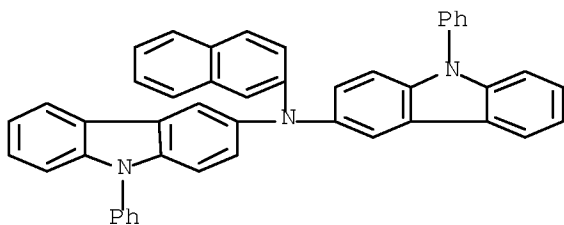
CAS Registry Number  
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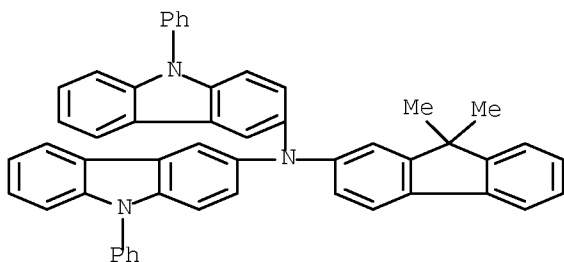
CAS Registry Number  
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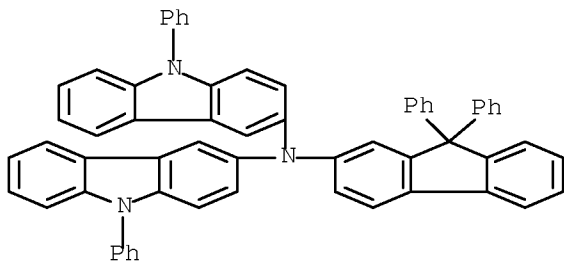
CAS Registry Number  
873793-64-7 CAPLUS

Chemical or Trade Name  
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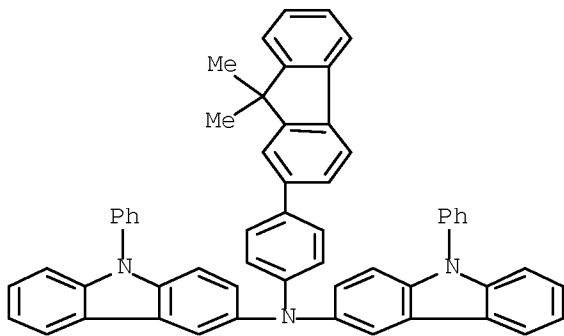
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873793-65-8 CAPLUS

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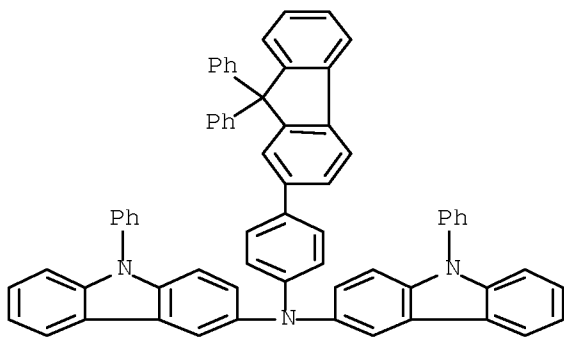
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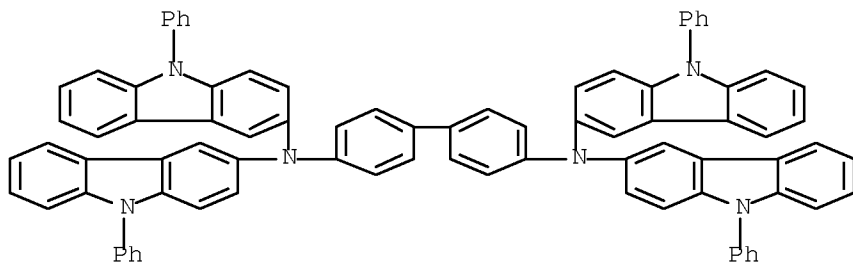
CAS Registry Number  
873793-73-8 CAPLUS

Chemical or Trade Name  
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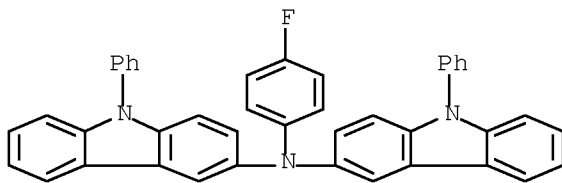
CAS Registry Number  
951407-68-4 CAPLUS

Chemical or Trade Name  
[1,1'-Biphenyl]-4,4'-diamine, N4,N4,N4',N4'-tetrakis(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



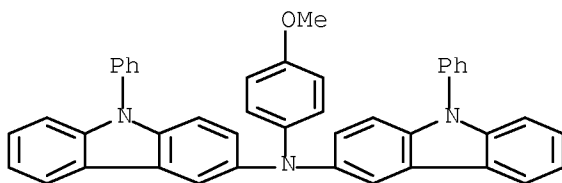
CAS Registry Number  
951407-73-1 CAPLUS

Chemical or Trade Name  
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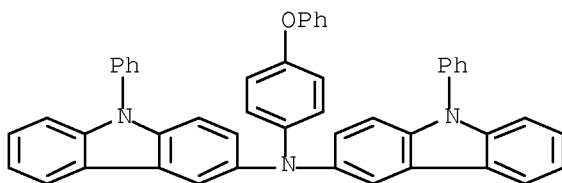
CAS Registry Number  
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Chemical or Trade Name  
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CAS Registry Number  
951407-75-3 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-(4-phenoxyphenyl)-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

L4 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2006:79285 CAPLUS [Full text](#)

Document Number

144:159926

Title

Phenylcarbazole compounds and organic electroluminescence devices using the same

Author/Inventor

Hwang, Seok-Hwan; Lee, Seok-Jong; Kim, Young-Kook; Yang, Seung-Gak; Kim, Hee-Yeon; Lee, Chang-Ho

Patent Assignee/Corporate Source

Samsung SDI Co., Ltd., S. Korea

Source

U.S. Pat. Appl. Publ., 22 pp. CODEN: USXXCO

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060020136	A1	20060126	US 2005-181706	20050713
US 7431997	B2	20081007		
KR 2006005755	A	20060118	KR 2004-54700	20040714
JP 2006028176	A	20060202	JP 2005-198787	20050707
JP 4458361	B2	20100428		
CN 1763006	A	20060426	CN 2005-10116009	20050714
US 20070231503	A1	20071004	US 2007-806039	20070529

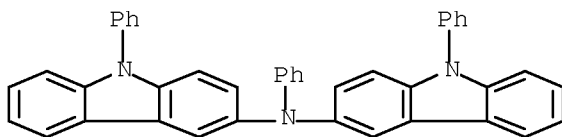
Abstract

Phenylcarbazole compds. are described by the general formula I (R1 and R2 = independently selected monosubstituted or polysubstituted groups selected from H, (un)substituted C1-30 alkyl, (un)substituted C6-30 aryl, (un)substituted C4-30 heterocyclic, and (un)substituted C6-30 condensed polycyclic groups, wherein groups adjacent to R1 and R2 can bind and form an (un)saturated cyclic hydrocarbon group; Ar = (un)substituted C6-30 aryl or C6-30 heteroaryl group; R4 = H or R; R3 = a monosubstituted or polysubstituted functional group selected from H, (un)substituted C1-30 alkyl, (un)substituted C6-30 aryl, (un)substituted C4-30 heterocyclic, and (un)substituted C6-30 condensed polycyclic groups; and Ar = (un)substituted C6-30 aryl or C6-30 heteroaryl group). Organic electroluminescent devices with organic layers incorporating the compds. are also described.

Hit Structure

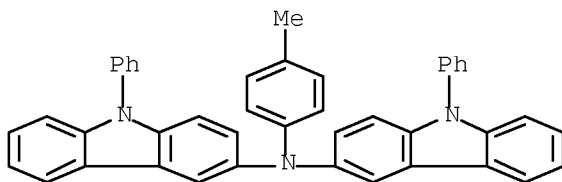
CAS Registry Number  
873793-58-9 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N,9-diphenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA  
INDEX NAME)



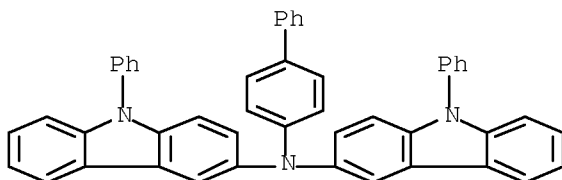
CAS Registry Number  
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Chemical or Trade Name  
9H-Carbazol-3-amine, N-(4-methylphenyl)-9-phenyl-N-(9-phenyl-9H-carbazol-3-  
yl)- (CA INDEX NAME)



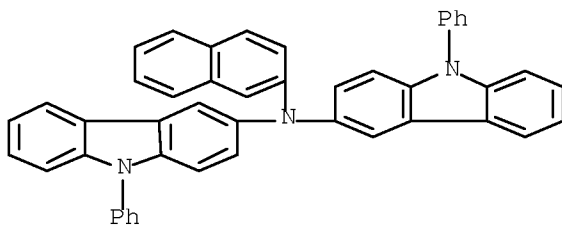
CAS Registry Number  
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Chemical or Trade Name  
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carbazol-3-yl)- (CA INDEX NAME)



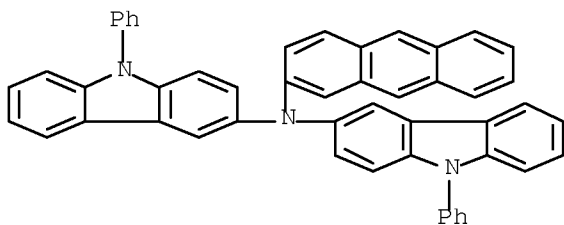
CAS Registry Number  
873793-62-5 CAPLUS

Chemical or Trade Name  
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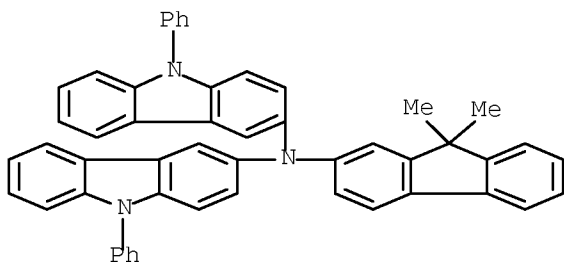
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873793-63-6 CAPLUS

Chemical or Trade Name  
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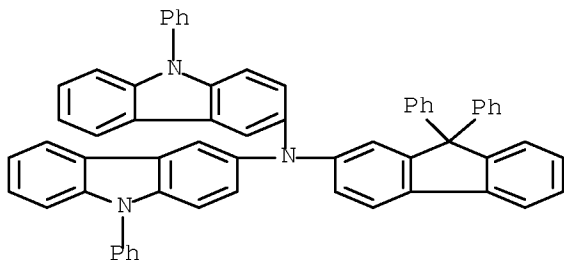
CAS Registry Number  
873793-64-7 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-(9,9-dimethyl-9H-fluoren-2-yl)-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



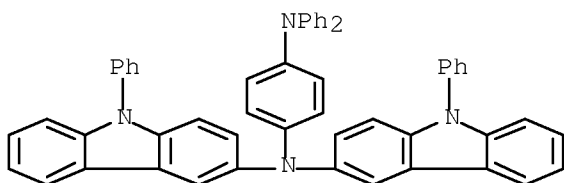
CAS Registry Number  
873793-65-8 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-(9,9-diphenyl-9H-fluoren-2-yl)-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



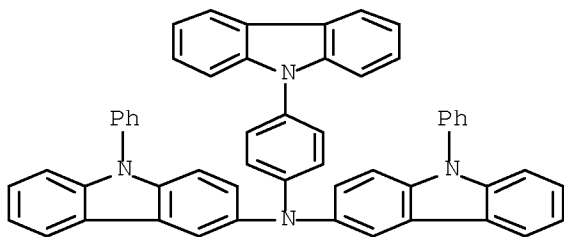
CAS Registry Number  
873793-68-1 CAPLUS

Chemical or Trade Name  
1,4-Benzenediamine, N1,N1-diphenyl-N4,N4-bis(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



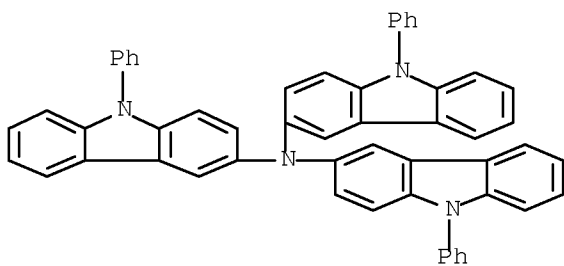
CAS Registry Number  
873793-69-2 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-[4-(9H-carbazol-9-yl)phenyl]-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



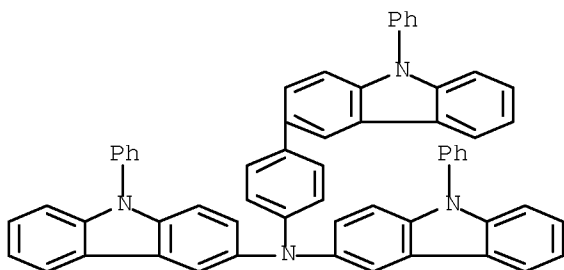
CAS Registry Number  
873793-70-5 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-phenyl-N,N-bis(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



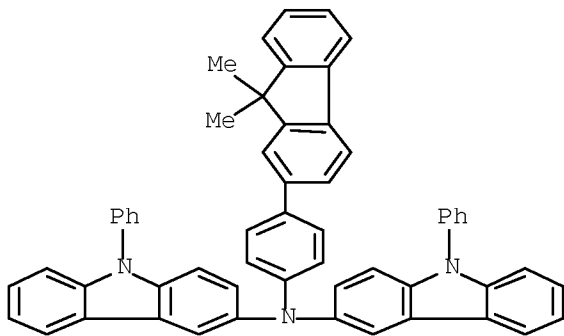
CAS Registry Number  
873793-71-6 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-N-[4-(9-phenyl-9H-carbazol-3-yl)phenyl]- (CA INDEX NAME)



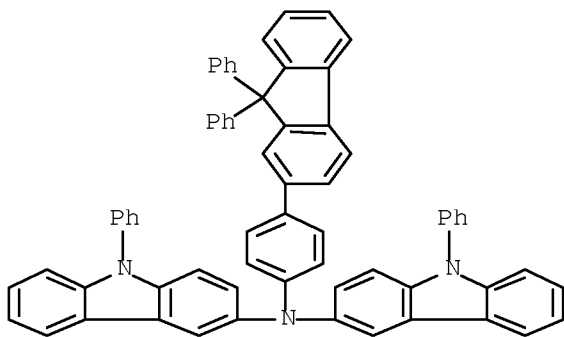
CAS Registry Number  
873793-72-7 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-[4-(9,9-dimethyl-9H-fluoren-2-yl)phenyl]-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



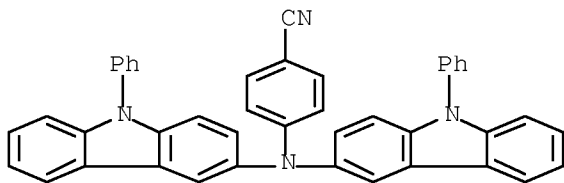
CAS Registry Number  
873793-73-8 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-[4-(9,9-diphenyl-9H-fluoren-2-yl)phenyl]-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



CAS Registry Number  
873793-59-0 CAPLUS

Chemical or Trade Name  
Benzonitrile, 4-[bis(9-phenyl-9H-carbazol-3-yl)amino]- (CA INDEX NAME)



OS.CITING REF COUNI: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L4 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number  
2005:1077993 CAPLUS [Full Text](#)  
Document Number  
143:376607

Title  
Fluorene-based compound and organic electroluminescent display device using the same  
Author/Inventor  
Hwang, Seok-Hwan; Lee, Seok-Jong; Kim, Young-Kook; Yang, Seung-Gak; Kim, Hee-Yeon  
Patent Assignee/Corporate Source  
S. Korea

Source  
U.S. Pat. Appl. Publ., 31 pp. CODEN: USXXCO

Document Type  
Patent

Language  
English  
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050221124	A1	20051006	US 2005-97182	20050404
KR 2005097670	A	20051010	KR 2004-22877	20040402
JP 2005290000	A	20051020	JP 2005-106551	20050401
JP 4347831	B2	20091021		
CN 1702065	A	20051130	CN 2005-10069765	20050401
US 20070231503	A1	20071004	US 2007-806039	20070529

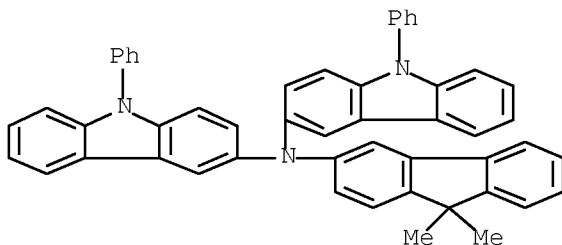
#### Abstract

A fluorene-based compound represented by the general formula I where Z is represented by the general formula II, III, and IV, where Ar is a substituted or unsubstituted aryl group or a group by the general formula V (X = N, B or P; Y = a single bond, a (un)substituted C1-C30 alkylene group, a (un)substituted C6-C30 arylene group, a (un)substituted C4-C30 heterocyclic group; R1, R2, R3 = H, (un)substituted C1-C30 alkyl group, a (un)substituted C6-C30 aryl group, a (un)substituted C4-C30 heterocyclic group, a (un)substituted C6-C30 condensed polycyclic group, where neighboring groups among R1, R2 and R3 are connected to each other to form a (un)saturated carbon ring; R, R' = H, a hydroxy group, a (un)substituted C1-C30 alkyl group, a (un)substituted C6-C30 aryl group) is described. An organic electroluminescent display device comprising two electrodes, and an organic layer interposed between the electrodes, wherein the organic layer comprises the fluorene-based compound is also described.

#### Hit Structure

CAS Registry Number  
866119-19-9 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-(9,9-dimethyl-9H-fluoren-3-yl)-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

. L4 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2005:368201 CAPLUS [Full-text](#)

Document Number

142:400330

Title

Organic electroluminescent materials containing perylenylamines and red-emitting organic electroluminescent devices using them

Author/Inventor

Tanaka, Hiroaki; Toba, Yasumasa; Amano, Saneomi; Suda, Yasumasa

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 48 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005112914	A	20050428	JP 2003-345833	20031003

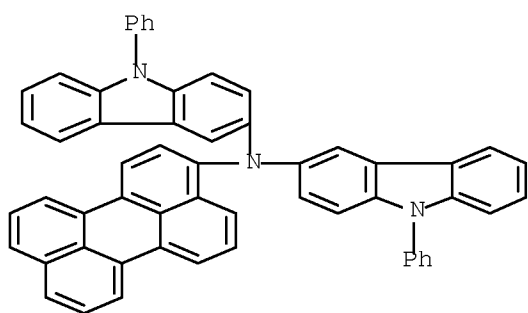
#### Abstract

The materials contain Ar1NR1R2 [Ar1 = (substituted) perylenyl; R1, R2 = aromatic hydrocarbyl, aromatic heterocyclyl; Ar1R1, Ar1R2, and R1R2 may form ring] as hosts and heterocyclic compds. I (X1 = O, S, NR8; R3-R8 = H, substituent; L1 = direct bond, linkage; Rx, Ry = H, substituent; Rx and/or Ry = electron withdrawing group; RxRy, R6R7, R7X1, L1R4, R3R4, and R3L1 may form ring) as dopants. The devices, preferably having emitter layers containing the materials, show high color purity and luminescence intensity with low operation voltage.

#### Hit Structure

CAS Registry Number  
519180-34-8 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



, L4 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2005:365501 CAPLUS [Full-text](#)

Document Number

142:419730

Title

Organic electroluminescent materials containing perylenylamines and red-emitting organic electroluminescent devices using them

Author/Inventor

Amano, Saneomi; Suda, Yasumasa; Toba, Yasumasa; Tanaka, Hiroaki

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 35 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005113071	A	20050428	JP 2003-351699	20031010
JP 4259264	B2	20090430		

Abstract

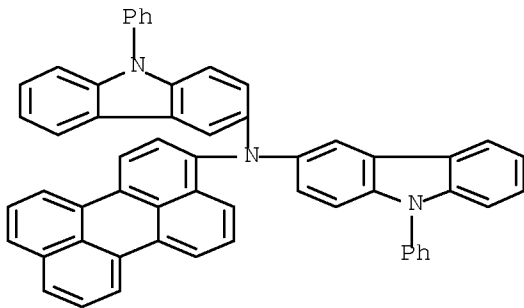
The materials contain Ar1NR1R2 [Ar1 = (substituted) perylenyl; R1, R2 = aromatic hydrocarbyl, aromatic heterocyclyl; Ar1R1, Ar1R2, and R1R2 may form ring] as hosts and naphthofluoranthenes I [X21-X38 = H, halo, C1-18 alkylm C2-20 alkenyl, etc.; vicinal groups among X33-X38 may form (condensed aromatic) ring] as dopants. The devices, preferably having emitter layers containing the materials, show high color purity and luminescence intensity with low operation voltage, and good durability.

Hit Structure

CAS Registry Number  
519180-34-8 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



, L4 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2005:322939 CAPLUS [Full-text](#)

Document Number

142:381908

Title

Red-emitting organic electroluminescent materials and organic electroluminescent devices comprising same

Author/Inventor

Tanaka, Hiroaki; Toba, Yasumasa; Suda, Yasumasa; Amano, Saneomi

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 34 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005097460	A	20050414	JP 2003-334708	20030926

Abstract

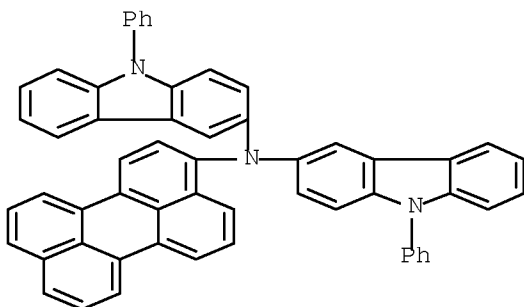
Red-emitting organic electroluminescent materials contain perylenylamine Ar1NR1R2 [Ar1 = (un)substituted perylenyl; R1-2 = monovalent (un)substituted aromatic hydrocarbyl or aromatic heterocycle group; Ar1 and R1, Ar1 and R2, R1 and R2 may form a ring], and methyne I [R3-12 = H, substituent; A = heterocycle containing aromatic ring; X = O, S, S NR13 (R13 = H, substituent); L1-2 = (substituted) methyne; n = 1, 2]. An red-emitting organic EL device comprising the materials in an emitter layer. The device provide red light with high luminance and color purity at low driving voltage.

Hit Structure

CAS Registry Number  
519180-34-8 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

. L4 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number 2005:302133 CAPLUS [Full-text](#)

Document Number 142:363457

Title Organic electroluminescent devices showing pure red emission with low drive voltage and materials therefor

Author/Inventor Tanaka, Hiroaki; Suda, Yasumasa; Amano, Masaomi; Toba, Yasumasa

Patent Assignee/Corporate Source Toyo Ink Mfg. Co., Ltd., Japan

Source Jpn. Kokai Tokkyo Koho, 42 pp. CODEN: JKXXAF

Document Type Patent

Language Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005089674	A	20050407	JP 2003-327409	20030919
JP 4325336	B2	20090902		

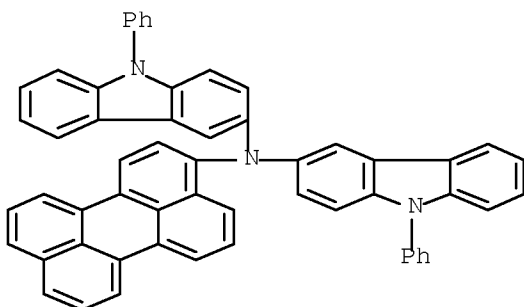
Abstract

The materials, for one or more of organic layers of the title LED, contain amine Ar1NR1R2 (Ar1 = perylenyl; R1, R2 = aromatic hydrocarbyl, aromatic heterocycle) and fluoranthene compds. I [R3-10 = H, hydrocarbyl, heterocycle, etc., essentially including NX1X2 (X1, X2 = H, hydrocarbyl, aromatic heterocycle)].

Hit Structure

CAS Registry Number 519180-34-8 CAPLUS

Chemical or Trade Name 9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

. L4 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number 2005:253755 CAPLUS [Full-text](#)

Document Number 142:344846

Title Organic electroluminescent devices with long life and high red-emission purity and materials therefor

Author/Inventor Tanaka, Hiroaki; Suda, Yasumasa; Toba, Yasumasa; Amano, Saneomi

Patent Assignee/Corporate Source Toyo Ink Mfg. Co., Ltd., Japan

Source Jpn. Kokai Tokkyo Koho, 45 pp. CODEN: JKXXAF

Document Type Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005075944	A	20050324	JP 2003-308670	20030901

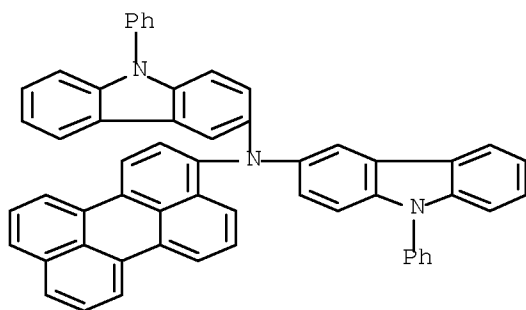
Abstract

The devices have plural organic compound layers between cathodes and anodes, where one or these layers (preferably emitting layers) contain NR1R2Ar1 (Ar1 = perylenyl; R1, R2 = monovalent aromatic hydrocarbyl, heterocycle) and I (Ar2, Ar3 = aryl, heterocycle; Ar4 = aryl- or heterocycle-containing linking group; R3, R4 = H, substituent; X1, X2 = O, S).

Hit Structure

CAS Registry Number  
519180-34-8 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

. L4 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2005:237837 CAPLUS [Full-text](#)

Document Number

142:325648

Title

Electroluminescent materials containing perylenylamines and styryl compounds, and red-emitting organic electroluminescent devices using them

Author/Inventor

Suda, Yasumasa; Toba, Yasumasa; Tanaka, Hiroaki; Amano, Saneomi

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 72 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005068377	A	20050317	JP 2003-303572	20030827

Abstract

The materials contain Ar1NR1R2 [Ar1 = (un)substituted perylenyl; R1, R2 = aromatic hydrocarbyl, aromatic heterocyclyl] and styryl compds. I or II (R3-R44 = aliphatic hydrocarbyl, aromatic hydrocarbyl, aliphatic heterocyclyl, aromatic heterocyclyl; X1-X3 = aromatic heterocyclylene; R3R19, R4R21, R5R28, R6R30, R7R31, R8R33, R9R42, and R10R44 may form ring). Thus, an organic electroluminescent device having an emitter layer containing 3-(diphenylamino)perylene, and I (R3 = R4 = R5 = R6 = 1-naphthyl, X1 = 9,10-dicyano-2,6-anthracenediyl, other = H) showed high luminescence intensity and color purity at low operation voltage, and lengthened service life.

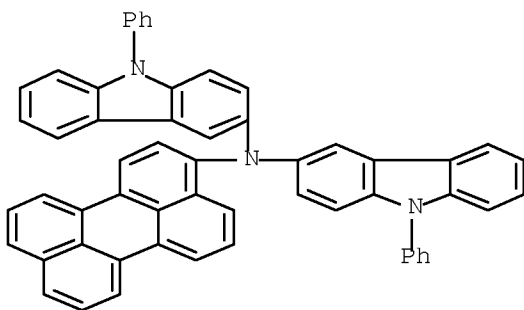
Hit Structure

CAS Registry Number

519180-34-8 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



. L4 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2005:237834 CAPLUS [Full-text](#)

Document Number

142:325647

Title

Electroluminescent materials containing perylenylamines and azafuoranthenes, and red-emitting organic electroluminescent devices using them

Author/Inventor

Toba, Yasumasa; Tanaka, Hiroaki; Amano, Saneomi; Suda, Yasumasa

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 68 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005068367	A	20050317	JP 2003-303402	20030827

Abstract

The materials contain Ar1NR1R2 [Ar1 = (un)substituted perylenyl; R1, R2 = aromatic hydrocarbyl, aromatic heterocyclyl] and azafuoranthenes I (X = N, CR3; R3 = H, aliphatic hydrocarbyl, NAi2Ar3, etc.; ≥1 of R3-R11 = NAi2Ar3). Thus, an organic electroluminescent device having an emitter layer containing di[4-(1,1-dimethylphenylmethyl)phenyl]-3-perylenylamine, and 1:1 mixture of II (Y = NPh2; Z = H) and I (Y = H, Z = NPh2) showed high luminescence intensity at low operation voltage.

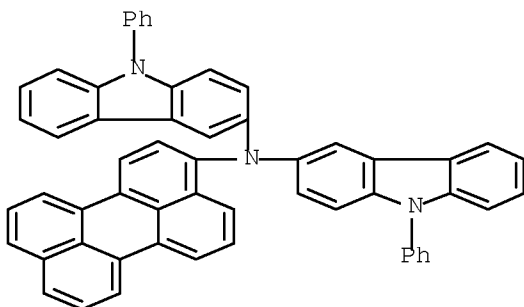
Hit Structure

CAS Registry Number

519180-34-8 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L4 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number 2005:215910 CAPLUS [Full-text](#)

Document Number 142:287613

Title Materials for red-emitting organic electroluminescent devices with long lifetime

Author/Inventor Toba, Yasumasa; Suda, Yasumasa; Amano, Saneomi; Tanaka, Hiroaki  
Patent Assignee/Corporate Source Toyo Ink Mfg. Co., Ltd., Japan

Source Jpn. Kokai Tokkyo Koho, 61 pp. CODEN: JKXXAF

Document Type Patent

Language Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005060459	A	20050310	JP 2003-289700	20030808

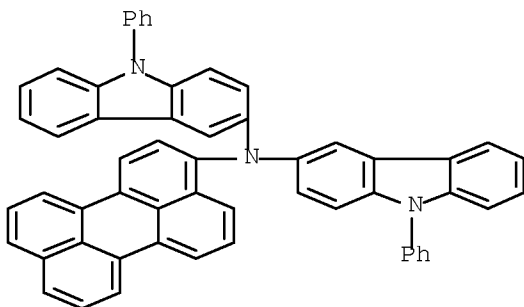
Abstract

The materials comprise (A) amines Ar1NR1R2 [Ar1 = (un)substituted perylenyl; R1, R2 = (un)substituted aromatic hydrocarbyl or aromatic heterocyclic group; Ar1 and R1, Ar1 and R2, or R1 and R2 may form ring] and (B) pyromethenes I or II [X1-X14 = H, (un)substituted aliphatic hydrocarbyl, aromatic hydrocarbyl, aliphatic heterocyclic group, or aromatic heterocyclic group; X1-X7 may form ring; Y1, Y2 = C, N; X15, X16 = halo, H, (un)substituted aliphatic hydrocarbyl, aromatic hydrocarbyl, aliphatic heterocyclic group, or aromatic heterocyclic group]. Organic electroluminescent devices have light-emitting layers of the materials. The devices show high luminance, low driving voltage, and high color purity.

Hit Structure

CAS Registry Number 519180-34-8 CAPLUS

Chemical or Trade Name 9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



L4 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number 2004:842711 CAPLUS [Full-text](#)

Document Number 141:340137

Title White-emitting organic electroluminescent device with high emission efficiency and long service life and its display and illumination

Author/Inventor Kita, Hiroshi  
Patent Assignee/Corporate Source Konica Minolta Holdings, Inc., Japan

Source Jpn. Kokai Tokkyo Koho, 41 pp. CODEN: JKXXAF

Document Type Patent

Language Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004288380	A	20041014	JP 2003-75511	20030319

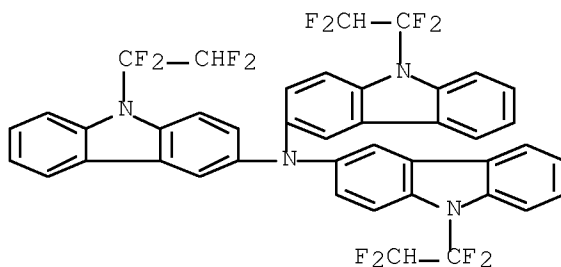
# Abstract

The organic EL device contains carbazol derivs. represented by the general formula I (R1 = H, substituent, F-containing alkyl; when R1 = H or substituent, ≥1 of R2-R9 = F or F-containing alkyl and other R2-R9 = H or substituent; when R1 = F-containing alkyl, R2-R9 = H or substituent). The organic EL device will contain I and phosphorescent dopants in the light-emitting layer.

## Hit Structure

CAS Registry Number  
773156-57-3 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-(1,1,2,2-tetrafluoroethyl)-N,N-bis[9-(1,1,2,2-tetrafluoroethyl)-9H-carbazol-3-yl]- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

\_L4 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2004:733022 CAPLUS [Full-text](#)

Document Number

141:403159

Title

Enhancement in brightness and efficiency of organic electroluminescent device using novel N,N-di(9-ethylcarbaz-3-yl)-3-methylaniline as hole injecting and transporting material

Author/Inventor

Liu, Di; Zhen, Chang-Gua; Wang, Xue-Song; Zou, De-Chun; Zhang, Bao-Wen; Cao, Yi

Patent Assignee/Corporate Source

Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing, 100101, Peop. Rep. China

Source

Synthetic Metals (2004), 146(1), 85-89 CODEN: SYMEDZ; ISSN: 0379-6779

Document Type

Journal

Language

English

Abstract

A novel hole injecting and transporting material, N,N-di(9-ethylcarbaz-3-yl)-3-methylaniline (DECMA), was prepared by 1-step reaction for use in organic electroluminescent (EL) devices. Organic EL device with configuration of ITO/DECMA (60 nm)/NPB (10 nm)/Alq3 (60 nm)/Mg:Ag/Ag turned on at 3.7 V and displayed a brightness of 1150 cd m<sup>-2</sup> and a current efficiency of 5.5 cd A<sup>-1</sup> at the c.d. of 20 mA cm<sup>-2</sup>, while a reference device with configuration of ITO/NPB (70 nm)/Alq3 (60 nm)/Mg:Ag/Ag turned on at 3.9 V and exhibited a brightness of 500 cd m<sup>-2</sup> and a current efficiency of 2.4 cd A<sup>-1</sup> at the same c.d. The lower turn on voltage and higher brightness and efficiency obtained in DECMA-containing device can be ascribed to the improved hole injection at anode/organic interface due to the low ionization potential of DECMA and the better balanced hole-electron recombination in emitting layer due to the moderate hole drift mobility of DECMA.

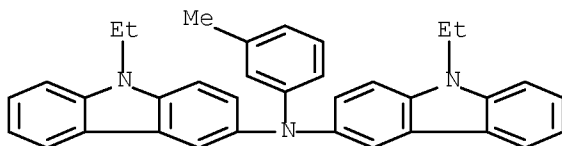
Hit Structure

CAS Registry Number

784547-91-7 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, 9-ethyl-N-(9-ethyl-9H-carbazol-3-yl)-N-(3-methylphenyl)- (CA INDEX NAME)



OS.CITING REF COUNT:

3

THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

\_L4 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2004:538877 CAPLUS [Full-text](#)

Document Number

141:225929

Title

Synthesis and properties of polymers containing aromatic amino groups in the main chain and their glass-forming model compounds

Author/Inventor

Balionyte, A.; Grigalevicius, S.; Grazulevicius, J. V.

Patent Assignee/Corporate Source

Department of Organic Technology, Kaunas University of Technology, Kaunas, 3028, Lithuania

Source

European Polymer Journal (2004), 40(8), 1645-1650 CODEN: EUPJAG; ISSN: 0014-3057

Document Type

Journal

Language

English

Abstract

Polymers containing di(carbazol-3-yl)phenylamine and N,N'-di(carbazol-3-yl)-N,N'-diphenyl-1,4-phenylenediamine units in the main chain have been synthesized by a modified Ullmann condensation as a key step. The number-average mol. wts. of the polymers synthesized were in the range of 2300-4800 with a mol. weight distribution of 1.42-2.25. Well defined model compds. of the title polymers were synthesized by stepwise reactions. All the materials exhibit high thermal stability with the initial weight loss temps. exceeding 320 °C and form glasses. Their glass transition temps. range from 102 to 216° as characterized by differential scanning calorimetry. The electron photoemission spectra of thin films of the synthesized compds. have been recorded and the ionization potentials of 5.0-5.1 eV have been established.

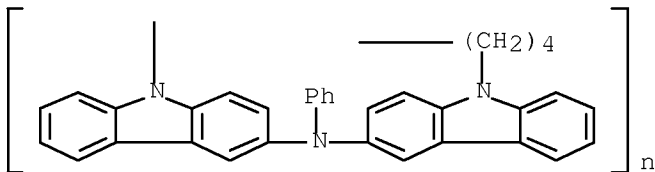
Hit Structure

CAS Registry Number

748816-22-0 CAPLUS

Chemical or Trade Name

Poly[9H-carbazole-9,3-diyl(phenylimino)-9H-carbazole-3,9-diyl-1,4-butanediyl] (9CI) (CA INDEX NAME)

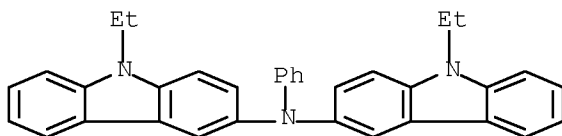


CAS Registry Number

188904-90-7 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, 9-ethyl-N-(9-ethyl-9H-carbazol-3-yl)-N-phenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

.L4 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2004:383153 CAPLUS [Full-text](#)

Document Number

141:303400

Title

Cyanocarbazole derivatives for high-performance electroluminescent devices

Author/Inventor

Thomas, K. R. Justin; Velusamy, Marappan; Lin, Jiann T.; Tao, Yu-Tai; Chuen, Chang-Hao

Patent Assignee/Corporate Source

Institute of Chemistry, Academia Sinica, Taipei, 115, Taiwan

Source

Advanced Functional Materials (2004), 14(4), 387-392 CODEN: AFMDC6; ISSN: 1616-301X

Document Type

Journal

Language

English

Abstract

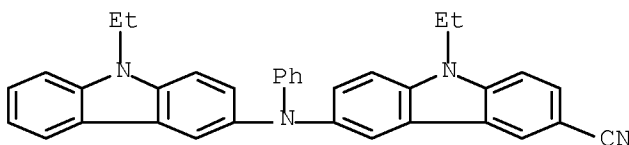
3-Cyano-9-(diarylamino)carbazoles have been synthesized. These new compds. emit in the blue to green region. Double-layer electroluminescent devices using these compds. as the hole-transport/emitting materials are highly efficient. Two of the compds. can be fabricated into single-layer devices with good performance. Green- and blue-emitting devices with good performance were also fabricated using one of the compds. as the hole-injection layer.

Hit Structure

CAS Registry Number  
764654-65-1 CAPLUS

Chemical or Trade Name

9H-Carbazole-3-carbonitrile, 9-ethyl-6-[(9-ethyl-9H-carbazol-3-yl)phenylamino]- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS  
RECORD (15 CITINGS)

.L4 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2003:454417 CAPLUS [Full-text](#)

Document Number

139:28484

Title

Composite for organic electroluminescent device comprising perylene and diketopyrrolopyrrole derivatives

Author/Inventor

Onikubo, Toshikazu; Oryu, Yoshitake; Amano, Masaomi; Maki, Shinichiro; Yanai, Hiroyuki; Yagi, Tadao

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

PCT Int. Appl., 75 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003048268	A1	20030612	WO 2002-JP12592	20021202
CN 1526002	A	20040901	CN 2002-813893	20021202
CN 1259388	C	20060614		
EP 1452574	A1	20040901	EP 2002-781866	20021202
JP 3835454	B2	20061018	JP 2003-549450	20021202
TW 295684	B	20080411	TW 2002-91134912	20021202
US 20040151944	A1	20040805	US 2003-482289	20031230

Abstract

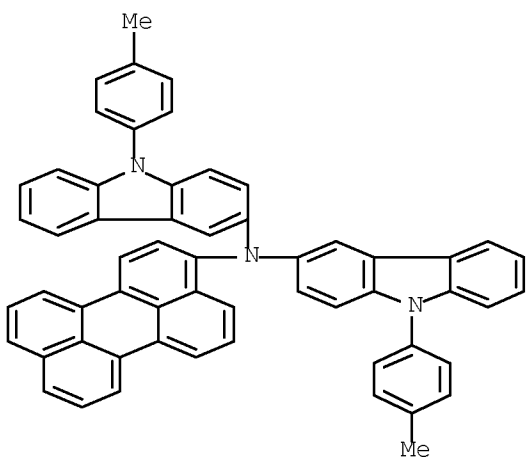
The invention refers to an organic electroluminescent device comprising a perylene derivative and a diketopyrrolopyrrole derivative. The device may also contain a compound having a fluorescence peak > 550 nm, and 5% of another compound relative to the first having a fluorescence spectrum 500 - 800 nm wherein the region > 600 nm is < 20% of the entire spectrum.

Hit Structure

CAS Registry Number  
519180-35-9 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, 9-(4-methylphenyl)-N-[9-(4-methylphenyl)-9H-carbazol-3-yl]-N-3-perylenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS  
RECORD (21 CITINGS)

Accession Number

2003:352229 CAPLUS [Full-text](#)

Document Number

138:360465

Title

Perylenyl amines for organic electroluminescent devices and such devices

Author/Inventor

Tanaka, Hiroaki; Kanno, Masaki; Yagi, Tamao; Toba, Yasumasa

Patent Assignee/Corporate Source

Toyo Ink Mfg. Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 43 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003129043	A	20030508	JP 2001-328707	20011026
JP 3873707	B2	20070124		

Abstract

Ar1NR1R2 [Ar1 = (un)substituted perylenyl; R1-2 = (un)substituted aliphatic or aromatic hydrocarbons or heterocycles, with but R1 or R2 = Ar2X1NR3R4; Ar2 = (un)substituted aromatic hydrocarbon or heterocycle; R3-4 = (un)substituted aliphatic or aromatic hydrocarbons or heterocycles; X1 = direct bond, O, S, CR5R6, SR7R8; R5-8 = H, (un)substituted aliphatic or aromatic hydrocarbon; either 2 of Ar2, X1, R3, and R4 may form ring; either 2 of Ar1, R1, and R2 may form ring] is claimed as a compound for use in electroluminescent devices. Electroluminescent devices including organic or light-emitting layer(s), containing the claimed compd(s), sandwiched in between a pair of electrodes are also claimed. Devices giving out long-lasting yellow to red light having high intensity are obtained.

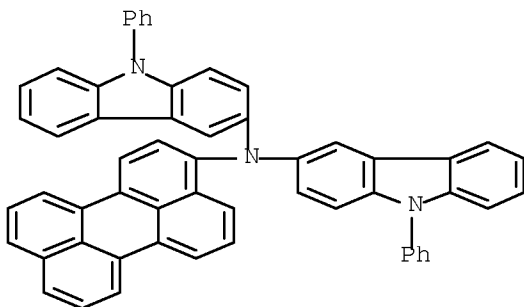
Hit Structure

CAS Registry Number

519180-34-8 CAPLUS

Chemical or Trade Name

9H-Carbazol-3-amine, N-3-perylenyl-9-phenyl-N-(9-phenyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)

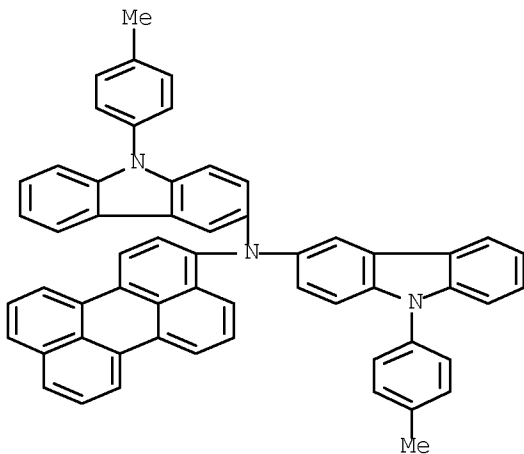


CAS Registry Number

519180-35-9 CAPLUS

Chemical or Trade Name

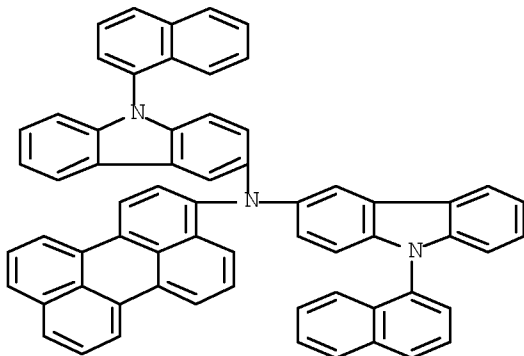
9H-Carbazol-3-amine, 9-(4-methylphenyl)-N-[9-(4-methylphenyl)-9H-carbazol-3-yl]-N-3-perylenyl- (CA INDEX NAME)



CAS Registry Number

519180-36-0 CAPLUS

Chemical or Trade Name  
 9H-Carbazol-3-amine, 9-(1-naphthalenyl)-N-[9-(1-naphthalenyl)-9H-carbazol-3-yl]-N-3-perylenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
 (3 CITINGS)

.L4 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

2003:115250 CAPLUS [Full-text](#)

Document Number

139:69798

Title

Potential hole-transport materials prepared by Ullmann coupling

Author/Inventor

Balionyte, A.; Grigalevicius, S.; Grazulevicius, J. V.

Patent Assignee/Corporate Source

Department of Organic Technology, Kaunas University of Technology, Kaunas, LT-3028, Lithuania

Source

Environmental and Chemical Physics (2002), 24(1), 30-34 CODEN: ECPNB5; ISSN: 1392-740X

Document Type

Journal

Language

English

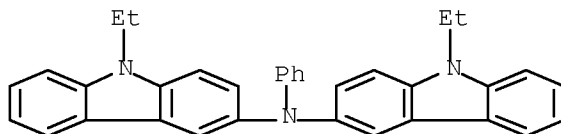
Abstract

Novel aromatic amine-based mols. and oligomers synthesized by the Ullmann coupling are reported. The thermal transitions of the synthesized compds. were studied by differential scanning calorimetry. The low-molar-mass compds. can be transferred into the glassy state by cooling from the melt. The glass transition temps. of the low-molar-mass glasses exceed 100°. UV absorption and fluorescence spectra of the dilute solns. of the compds. are presented and discussed. The ionization potentials of the films of the synthesized compds. measured by the electron photoemission technique are close and range from 4.95 to 5.05 eV.

Hit Structure

CAS Registry Number  
 188904-90-7 CAPLUS

Chemical or Trade Name  
 9H-Carbazol-3-amine, 9-ethyl-N-(9-ethyl-9H-carbazol-3-yl)-N-phenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
 (2 CITINGS)

.L4 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2010 ACS on STN

Accession Number

1997:302888 CAPLUS [Full-text](#)

Document Number

126:285314

Title

Electrophotographic photosensitive member and apparatus and process cartridge provided with the same

Author/Inventor

Tanaka, Takakazu; Kikuchi, Toshihiro; Kanemaru, Tetsuro; Nakata, Kouichi

Patent Assignee/Corporate Source

Canon K. K., Japan

Source

Eur. Pat. Appl., 17 pp. CODEN: EPXXDW

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 762219	A1	19970312	EP 1996-401900	19960905
EP 762219	B1	20010131		
JP 09134020	A	19970520	JP 1996-225119	19960827

JP 3313980	B2	20020812		
US 5756248	A	19980526	US 1996-707672	19960904

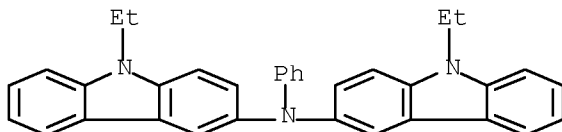
# Abstract

An electrophotog. photosensitive member comprises a substrate and a photosensitive layer formed thereon and the photosensitive layer contains an arylamine compound expressed by the general formula I wherein R1 is substituted or unsubstituted alkyl, aralkyl, alkaryl, or aryl, R2-8 are hydrogen, halogen, substituted or unsubstituted alkyl, alkoxy, or amino, and A is alkyl, aryl, or heterocyclic aryl. An electrophotog. apparatus includes the electrophotog. photosensitive member set forth above, a charging means, an exposure means, and a developing means. A process cartridge is formed in which the photosensitive member is integrated with at least one of a charging means, a developing means, and a cleaning means.

# Hit Structure

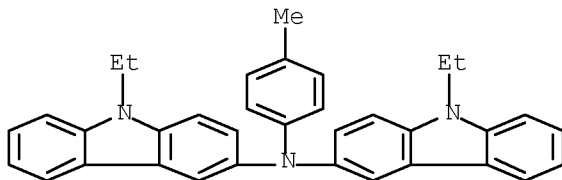
CAS Registry Number  
188904-90-7 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-ethyl-N-(9-ethyl-9H-carbazol-3-yl)-N-phenyl- (CA INDEX NAME)



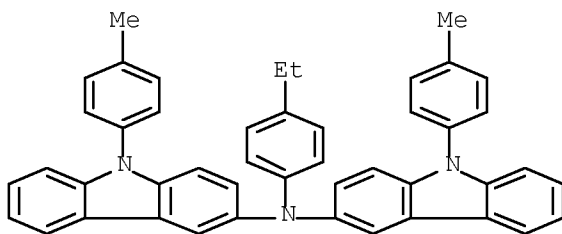
CAS Registry Number  
188904-92-9 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-ethyl-N-(9-ethyl-9H-carbazol-3-yl)-N-(4-methylphenyl)- (CA INDEX NAME)



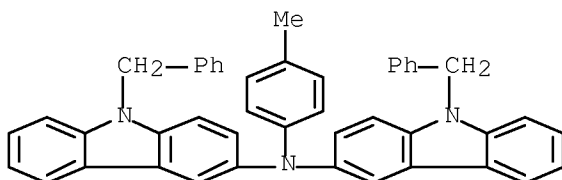
CAS Registry Number  
188904-95-2 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-(4-ethylphenyl)-9-(4-methylphenyl)-N-[9-(4-methylphenyl)-9H-carbazol-3-yl]- (CA INDEX NAME)



CAS Registry Number  
188904-98-5 CAPLUS

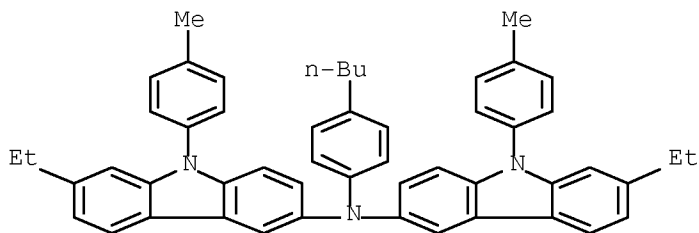
Chemical or Trade Name  
9H-Carbazol-3-amine, N-(4-methylphenyl)-9-(phenylmethyl)-N-[9-(phenylmethyl)-9H-carbazol-3-yl]- (CA INDEX NAME)



CAS Registry Number

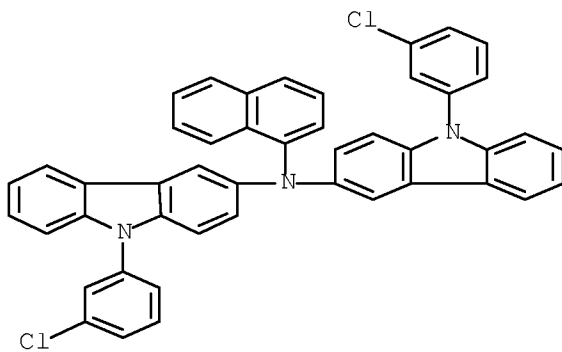
188905-01-3 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, N-(4-butylphenyl)-7-ethyl-N-[7-ethyl-9-(4-methylphenyl)-9H-carbazol-3-yl]-9-(4-methylphenyl)- (CA INDEX NAME)



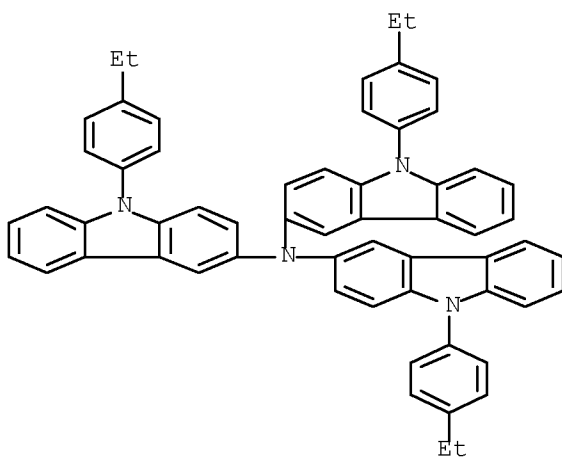
CAS Registry Number  
188905-02-4 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-(3-chlorophenyl)-N-[9-(3-chlorophenyl)-9H-carbazol-3-yl]-N-1-naphthalenyl- (CA INDEX NAME)



CAS Registry Number  
188905-03-5 CAPLUS

Chemical or Trade Name  
9H-Carbazol-3-amine, 9-(4-ethylphenyl)-N,N-bis[9-(4-ethylphenyl)-9H-carbazol-3-yl]- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

Accession Number  
1988:177186 CAPLUS [Full-text](#)  
Document Number  
108:177186

Title  
Organic charge transport layer in electrophotographic photoreceptor  
Author/Inventor  
Yamashita, Masataka; Matsumoto, Masakazu; Takiguchi, Takao; Kikuchi, Norihiro; Miyazaki, Hajime  
Patent Assignee/Corporate Source  
Canon K. K., Japan

Source  
Jpn. Kokai Tokkyo Koho, 23 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62280850	A	19871205	JP 1986-126855	19860530
JP 2501198	B2	19960529		

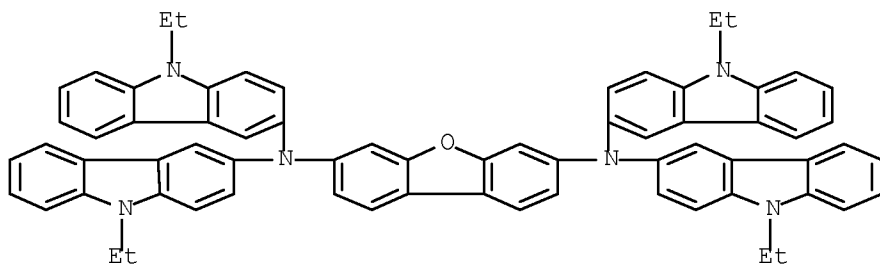
#### Abstract

An electrophotog. photoreceptor is claimed which comprises a charge-transport layer containing a compound represented by I [X = moiety required for ring closure selected from O, SO, SO<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, CO, COCH<sub>2</sub>, CONH, N=N; R<sub>1</sub>-R<sub>4</sub> = alkyl, aralkyl, aryl, heterocyclic group], wherein the photoreceptor is a separated function type further comprising a charge-generating layer.

#### Hit Structure

CAS Registry Number  
113933-81-6 CAPLUS

Chemical or Trade Name  
3,7-Dibenzofurandiamine, N3,N3,N7,N7-tetrakis(9-ethyl-9H-carbazol-3-yl)-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

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L2      69 SEA FILE=REGISTRY SSS FUL L1

FILE 'CAPLUS' ENTERED AT 16:41:50 ON 10 MAY 2010
L3      41 SEA FILE=CAPLUS SPE=ON  ABB=ON  FLU=ON  L2
L4      20 SEA FILE=CAPLUS SPE=ON  ABB=ON  FLU=ON  L3 AND (PY<2005 OR
        AY<2005)
        D IBIB ABS HITSTR 1-

FILE 'STNGUIDE' ENTERED AT 16:48:50 ON 10 MAY 2010
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